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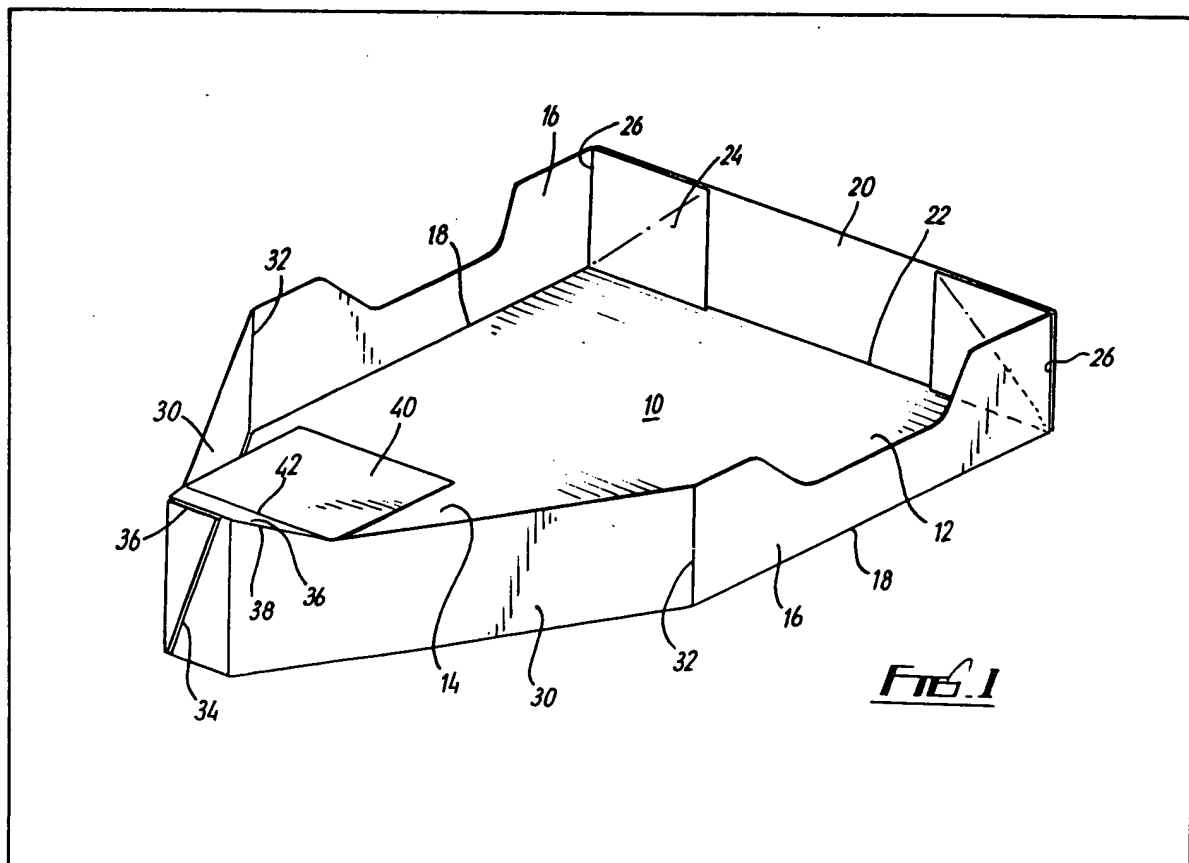
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- (71) Applicants
Corrugated Products
Limited,
Derby Road, Belper,
Derby
- (72) Inventor
Richard Alexander Pollard
- (74) Agents
Swindell & Pearson

(54) Trays

(57) A tray for poultry has a base 10, the edges of which have upstanding sides 16, 20, having a rectangular portion 12 and a converging preferably triangular, truncated triangular or a part-circular portion 14. Further sides 30 are hinged to the sides 16 and united by overlapping portions 36, though not attached to the portion 14, and the tray can be erected from a flattened to an in-use position by hand or machine by pulling the sides 16 upwardly and outwardly from positions overlying the base 10. The tray is manufactured from a single piece blank by folding and fixing at three separated areas on the blank, i.e. at triangular interface areas between the side 20 and end flaps 24 and at the overlapping areas 36.



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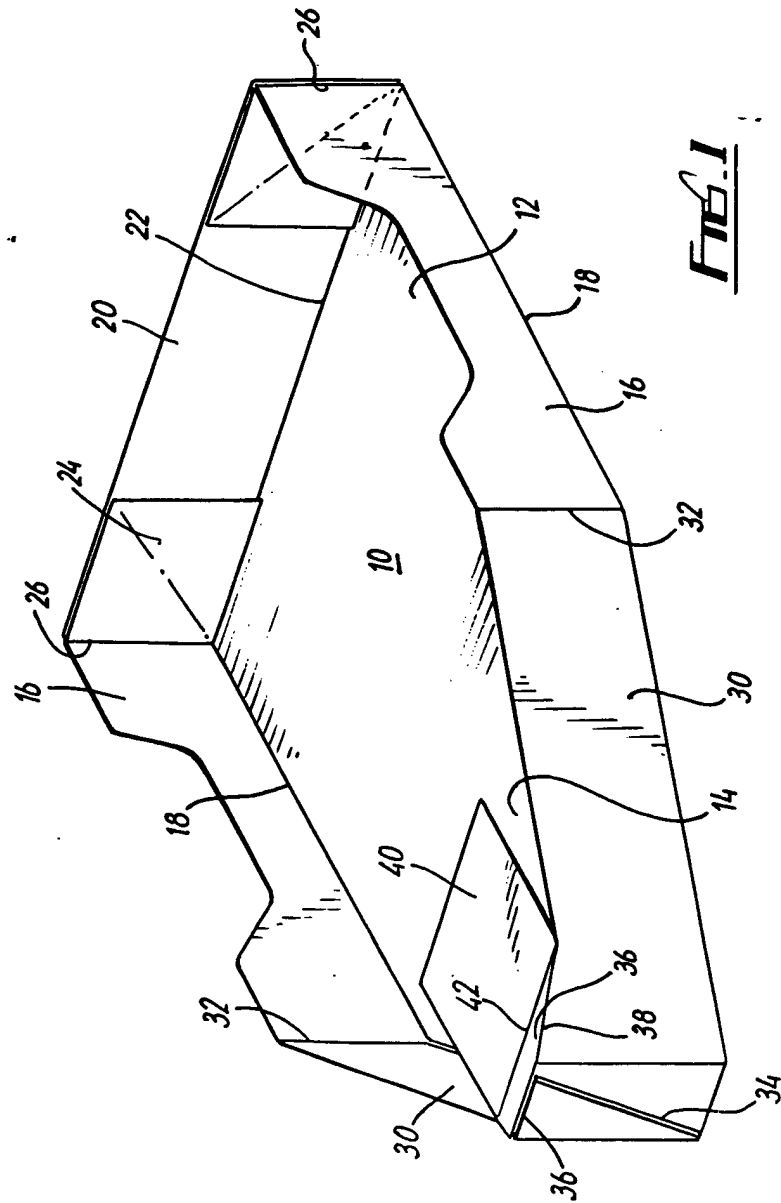
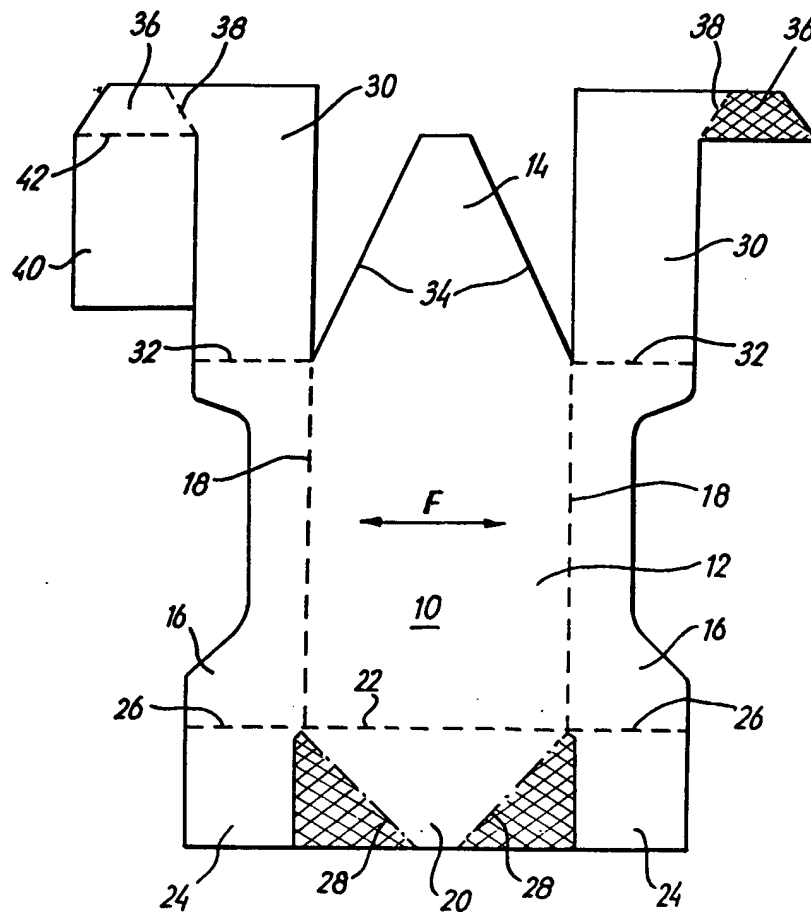


FIG. 1

$2\frac{1}{2}$ FIG. 2

SPECIFICATION

Improvements in or relating to trays or boxes

5 The present invention concerns an improved tray or box, especially but not exclusively a tray for use in the packaging of poultry.

A known method of packaging poultry, for example cooked chickens, comprises placing the chicken on a tray and covering the tray and chicken with a transparent packaging material. Owing to the irregular shape of chickens normal rectangular trays have proved to be unsuccessful in view of the relatively large area thereof unoccupied by the chicken.

15 A tray manufactured from corrugated board has been proposed which has a base plan adapted to conform approximately to the plan of a dressed chicken. The plan of that tray comprised a rectangular portion with a substantially triangular portion extending from one side thereof, walls being provided upstanding from each of the edges of the base. The relatively complex shape of this tray has meant that it must be assembled by hand from a flat blank. Clearly this is disadvantageous as manual assembly is time and labour intensive.

It is an object of the present invention to obviate or mitigate these disadvantages.

The present invention relates to a tray or box having a base each edge of which has an associated upstanding side the base, in plan, having a rectangular portion and extending from one end thereof a further portion which converges away from said end, for example a triangular portion, a truncated triangular portion or a part-circular portion. The invention relates also to a tray or box which is pre-assembled and thereafter collapsed for storage and transportation purposes such that when it is filled it can be erected to its in-use position by hand or machine without involving any assembly steps for example glueing or folding or interlocking tabs. In the following specification such a tray or box will be referred to as "a tray of the type defined".

According to the present invention there is provided a tray of the type defined which is manufactured from a single piece blank by folding and fixing at three separated areas on the blank.

Preferably the two parallel facing sides of the tray are each provided at one end with an extension adapted for fixing to the side opposite from said end of the base from which its further portion extends said side being provided with fold lines such that after fixing said extensions to said side the three sides may be folded inwardly towards the base to lie in a plane substantially parallel to the plane of the base.

Preferably said facing sides each have a further extension extending from the other end thereof, each further extension forming a side associated with a side of the said further portion of the base. In the region of the end of said further extensions remote from their attachment to said facing sides each further extension is provided with a tab which

is of such length that, in the assembled tray it overlaps the tab of the other further extension. One of said tabs may be provided with a flap extending in the longitudinal direction of said further extension. Preferably fold lines are provided on said tabs.

65 Preferably the three areas of the blank adapted for fixing are said extensions from the facing sides and the associated portions of the other side and said tabs, and fixing is achieved by the application of a suitable adhesive.

Further according to the present invention there is provided a blank for assembly into a tray of the type described in the preceding four paragraphs.

75 An embodiment of the present invention will now be described by way of example only with reference to the accompanying drawings in which:

Fig. 1 shows a perspective view of an assembled tray in its erected condition; and

80 Fig. 2 shows a view of a blank from which the tray shown in Fig. 1 is assembled.

A tray for carrying a cooked chicken includes a base 10 having a rectangular portion 12 and, extending from one end thereof a truncated triangular portion 14. Two sides 16 are formed from the parallel edges 18 of the rectangular portion 12 of the base 10 and a further side 20 is formed from the edge 22 of the base. Each side 16 at its end adjacent the side 20 is provided with an extension 24 which can hinge about a fold line 26 and two angled fold lines 28 extending from the junctions of the edges 18 with the edge 22 are provided on the further side 20, the purpose of said fold lines 28 becoming apparent later.

Each side 16 at its end remote from the further side 22 is provided with a further extension 30 hingeable to said side 16 along fold lines 32, the length of said further extension 30 corresponding to the length of the edges 34 forming said further portion 14 of the base.

Each further extension or side 30 is provided with a laterally extending tab 36 hingeable relative to the extension about a fold line 38 which is arranged at an angle relative to the edges of the side 30. A flap 40 is attached to one of the tabs 36 along a fold line 42.

A blank as shown in Fig. 2 is cut by a normal process from a sheet of corrugated board or the like which may or may not have a suitable waterproof coating, the flutes running in the direction of arrow F shown on Fig. 2. During the cutting operation which produces cuts along the full lines shown in Fig. 2 fold lines are also defined on the blank these being indicated by the dotted lines shown in Fig. 2. The blank is then passed to a folding and glueing machine where glue is applied to part or all of the shaded areas shown in Fig. 2 and the appropriate parts of the blank are folded such that it take the form of an assembled erected tray as shown in Fig. 1. For ease of transportation the erected tray is then collapsed flat, this being achieved by folding the sides 16 and 29 inwardly on to the top of the base 10 the fold lines or gussets 28 on the side 20 permitting it to lie under the side 16 when the tray is collapsed. Thus an

essentially flat collapsed tray is provided which can be readily stored and transported.

When it is desired to utilise the tray the sides 16 and 20 are pulled upwardly away from the base 10 and the tray automatically assumes the erected form shown in Fig. 1. A chicken can then be placed on the tray, conveniently with the flap 40 over its "nose" and the tray and chicken can then be packaged, for example by covering them in a shrink-wrap cover or inserting them into a polythene bag which is then evacuated.

It will be realised that various modifications can be made without departing from the scope of the present invention, for example the dimensions of the blank can be varied considerably, different configurations for the sides can be chosen, the extension portion 14 of the base can be of an alternative shape, for example semicircular, the flap 40 can be dispensed with and the arrangement of extensions, tabs, glued areas, etc. can be modified in accordance with the capabilities of the folding and glueing machine. Furthermore alternative fixing means for example rivets staples or stitching can be used in place of glue.

Whilst endeavouring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to whether or not particular emphasis has been placed thereon.

CLAIMS

1. A tray of the type defined which is manufactured from a single piece blank by folding and fixing at three separated areas on the blank.
2. A tray as claimed in claim 1, in which the two parallel facing sides of the tray are each provided at one end with an extension adapted for fixing to the side opposite from said end of the base from which its further portion extends said side being provided with fold lines such that after fixing said extensions to said side the three sides may be folded inwardly towards the base to lie in a plane substantially parallel to the plane of the base.
3. A tray as claimed in claim 2, in which said facing sides each have a further extension extending from the other end thereof, each further extension forming a side associated with a side of the said further portion of the base.
4. A tray as claimed in claim 3, in which in the region of the end of said further extensions remote from their attachment to said facing sides each further extension is provided with a tab which is of such length that, in the assembled tray it overlaps the tab of the other further extension.
5. A tray as claimed in claim 4, in which one of said tabs is provided with a flap extending in the longitudinal direction of said further extension.
6. A tray as claimed in claim 4 or claim 5, in which fold lines are provided on said tabs.
7. A tray as claimed in any one of the preceding claims, in which the three areas of the blank adapted for fixing are said extensions from the facing sides and the associated portions of the other side and said tabs, and fixing is achieved by the application of

a suitable adhesive.

8. A blank for assembly into a tray substantially as claimed in any one of claims 1 to 7.

9. A tray substantially as hereinbefore described with reference to the accompanying drawings.

10. Any novel subject matter or combination including novel subject matter herein disclosed, whether or not within the scope of or relating to the same invention as any of the preceding claims.

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